In the present study overall LVH is 72.4% with more pronounced in HD group than PD group. Although the pathogenesis of LVH in CKD is considered to be multifactorial, hypertension, alterations of fluid and electrolyte balance and anemia are identified as the major determinants of LV growth in CKD and ESRD patients. From an hemodynamic view, LVH is primarily an adaptive remodeling process, compensating for an increase in cardiac work, which may be due to volume and/or pressure overload. This study revealed that LVH is more common in HD than PD patients together with SBP.

This single-center study indicates that clinically relevant overhydration, as defined by BCM even in a center where much attention is paid to volume status, is very high. This indicates that the current clinical and technical tools available to help the clinician attempt to achieve euvoemia are insufficient and that an additional tool, such as BCM, can be useful in the diagnosis of overhydration as a practical and inexpensive method than other imaging techniques.

The main limitation of this study is its cross-sectional design, which enables associations but not cause and effect to be determined with certainty. The unequal distribution of age and dialysis vintage between the groups were not anticipated but were taken into account in the subsequent analysis.

In summary, HD patients are more overhydrated than PD patients. The excess fluid encourages ECW accumulation which may lead adverse effect in organ functions especially cardiac condition. The normalizing the volume status may have impact on intravascular volume, patient well-being, and residual renal function. The benefit of normalizing the volume status should be tested in carefully designed prospective randomized controlled clinical trials.

Acknowledgement: No grant, fund or support was used for this study

References